

2022 Kansas Renewable Energy Conference

Manhattan, KS (October 3-4, 2022)

Ørsted Onshore - Donnie Joe (DJ) Worth

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Overview

- About Orsted
- Future of Development
- "Wind+" Development
- Questions



Our vision

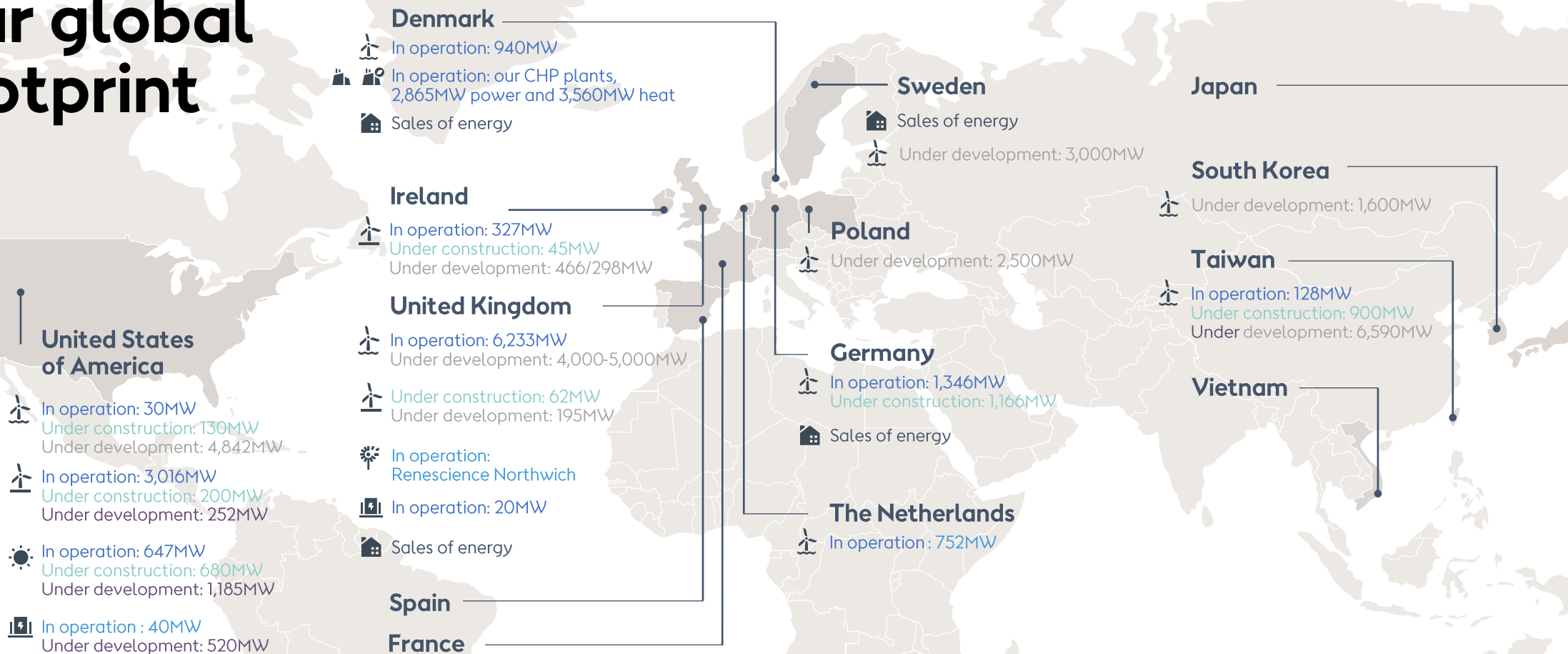
Let's create a
world that
runs entirely on
green energy



Ranked most
sustainable
company in
the world



Our global footprint



Activities

- Offshore wind
- Onshore wind
- Solar
- Biomass-fired power plant

- Fossil-fueled power plant
- Bio plant
- Storage
- Sales of energy

Status

- In operation
- Under construction
- Under development

Land-Based Wind



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Offshore Wind



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Solar & Storage

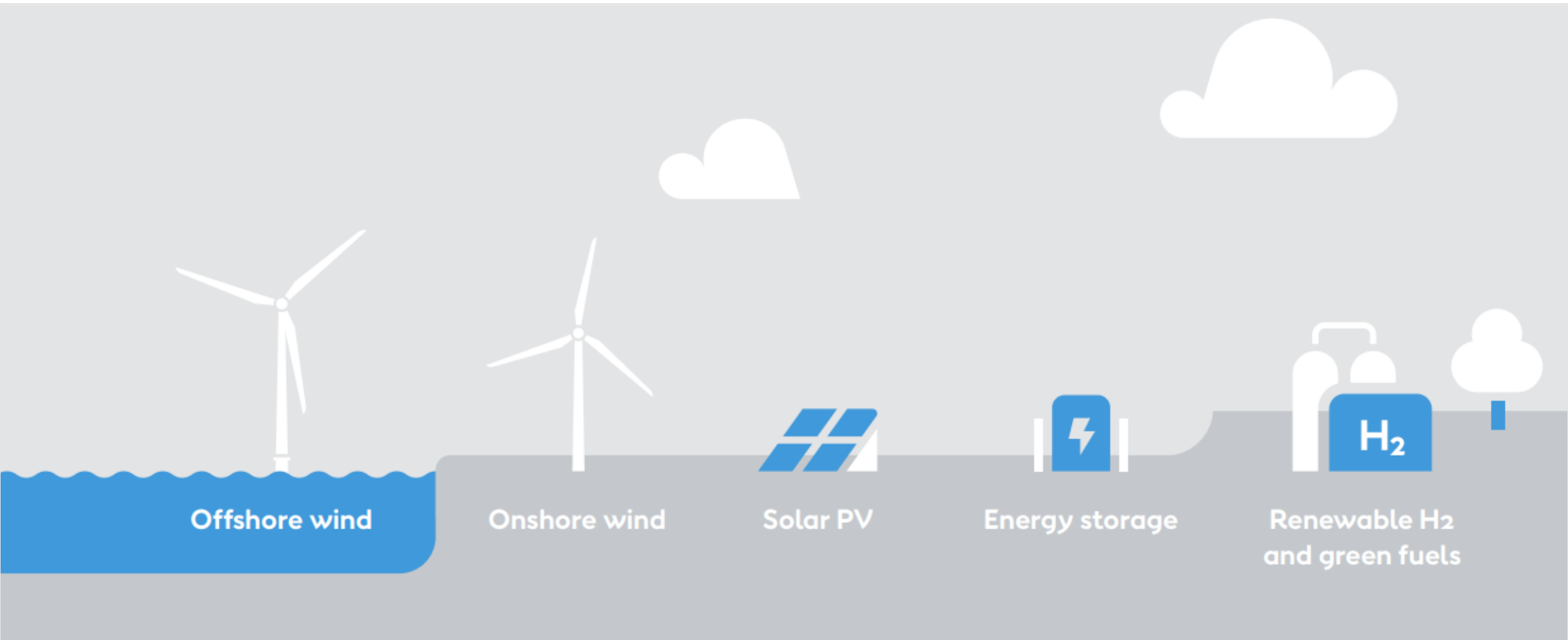


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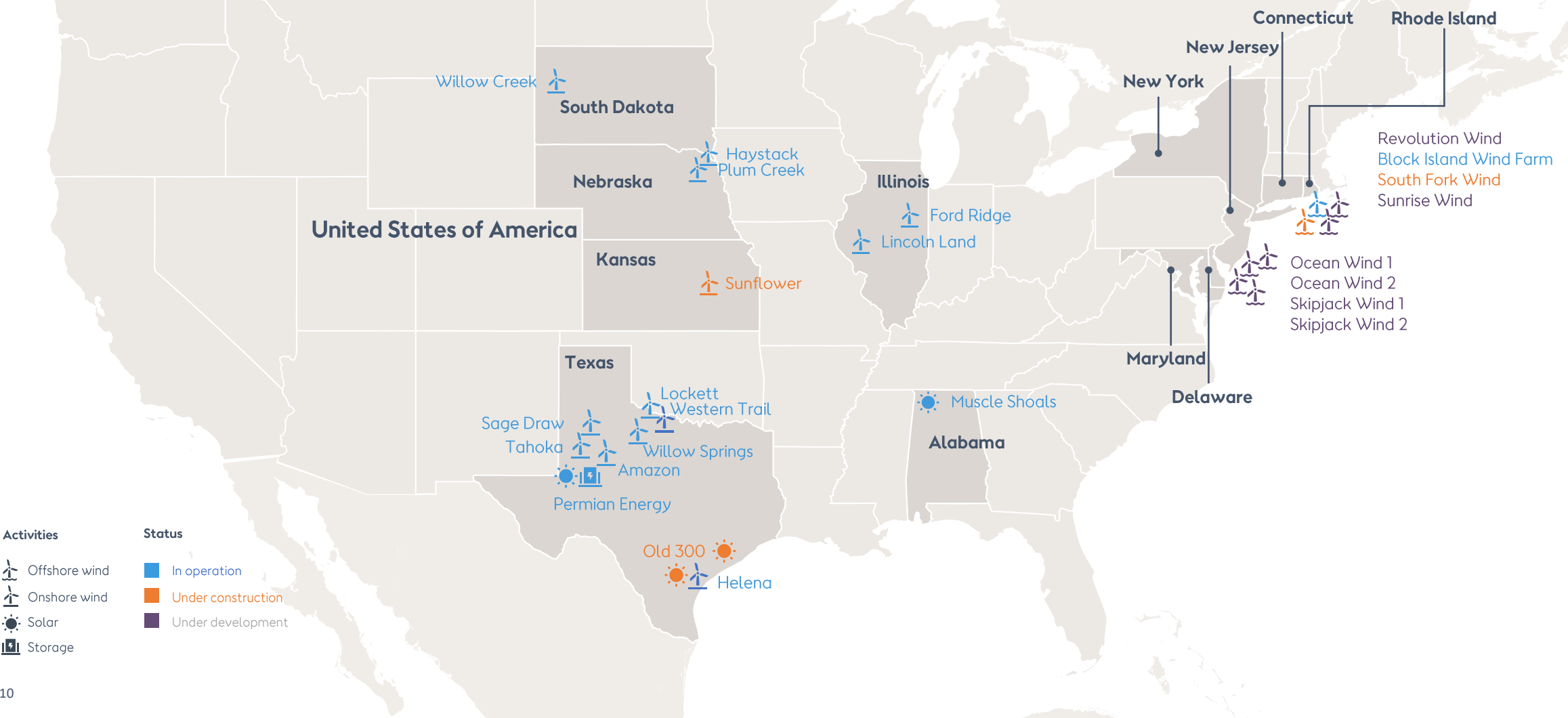
Biomass Generation



Technologies – Ørsted Growth Platform



Our footprint in North America



Sunflower Wind (Marion County, Kansas)

- **Location:** Marion County, KS
- **Capacity:** 200.6 MW
- **Interconnection:** SPP - Evergy
- **COD:** 2023



Future of Development

Future of Development



Future of Development



Future of Development



Future of Development



Future of Development



Future of Development



Future of Development

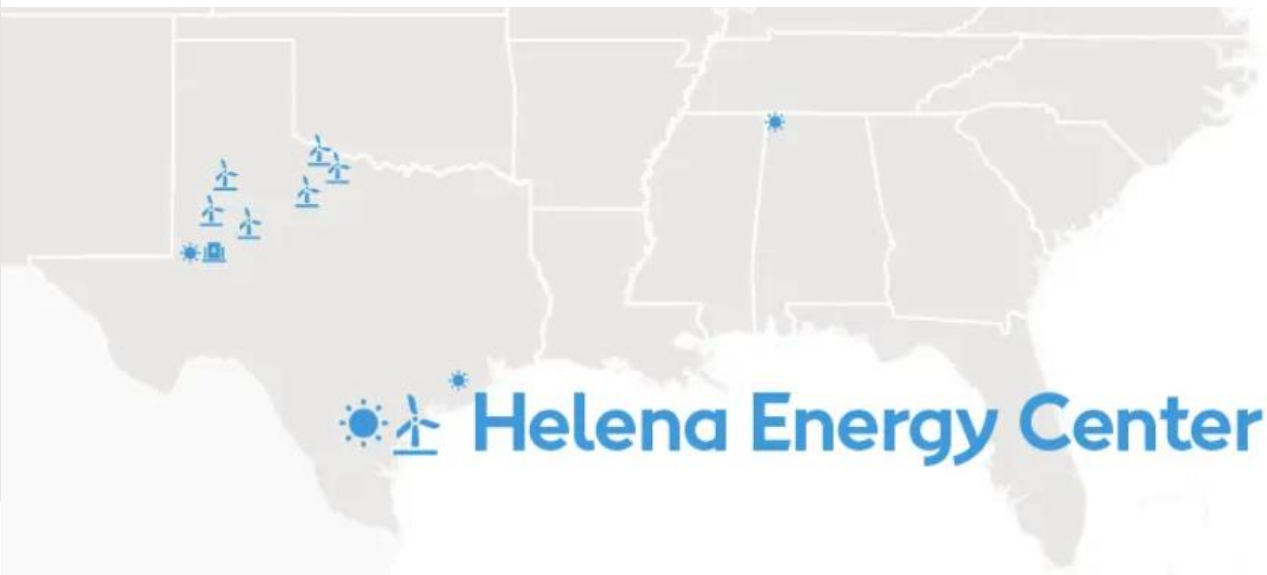


“Wind+” Development

Hybrid Power Plants (Wind + Solar)

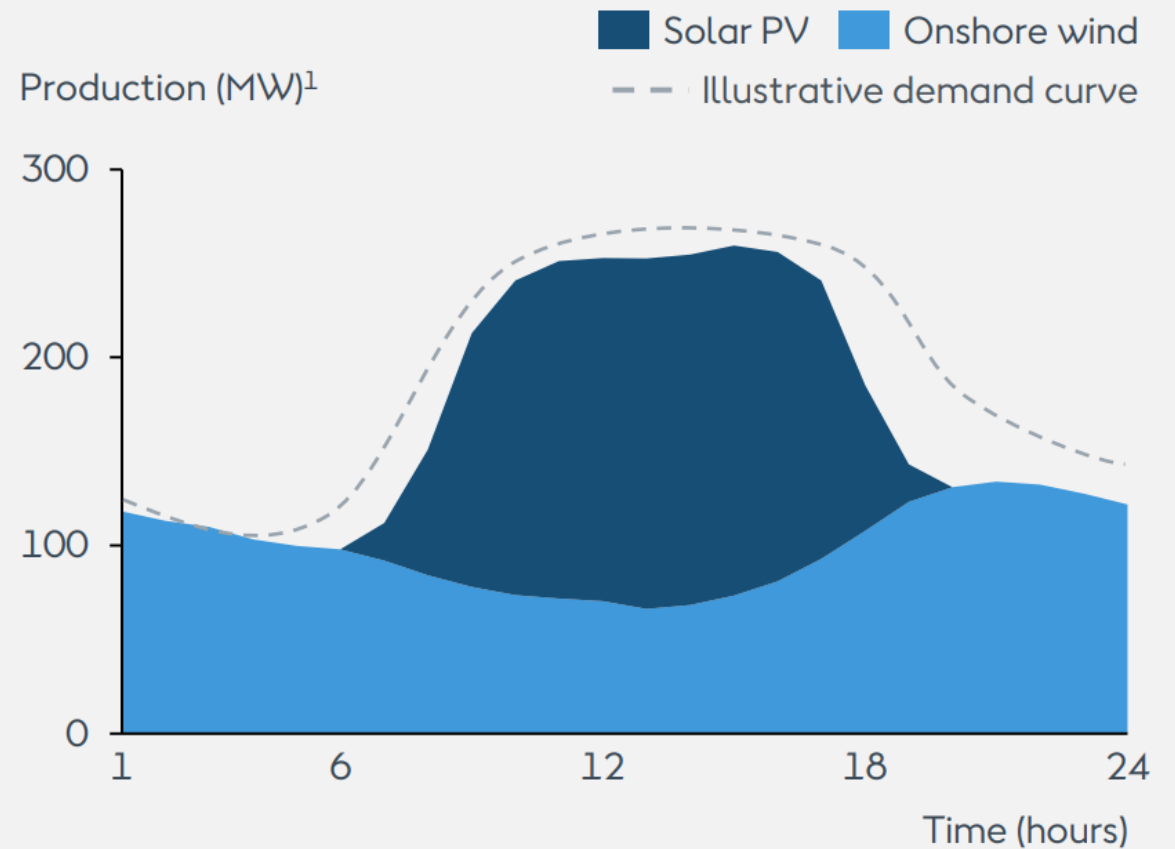
Case study - Helena Energy Center (Texas)

- 268 MW of onshore wind co-located with 250 MW of solar PV in south-eastern Texas
- Larger-scale allows optimisation of scarce transmission capacity
- Hybrid structure unlocking additional LCoE efficiencies



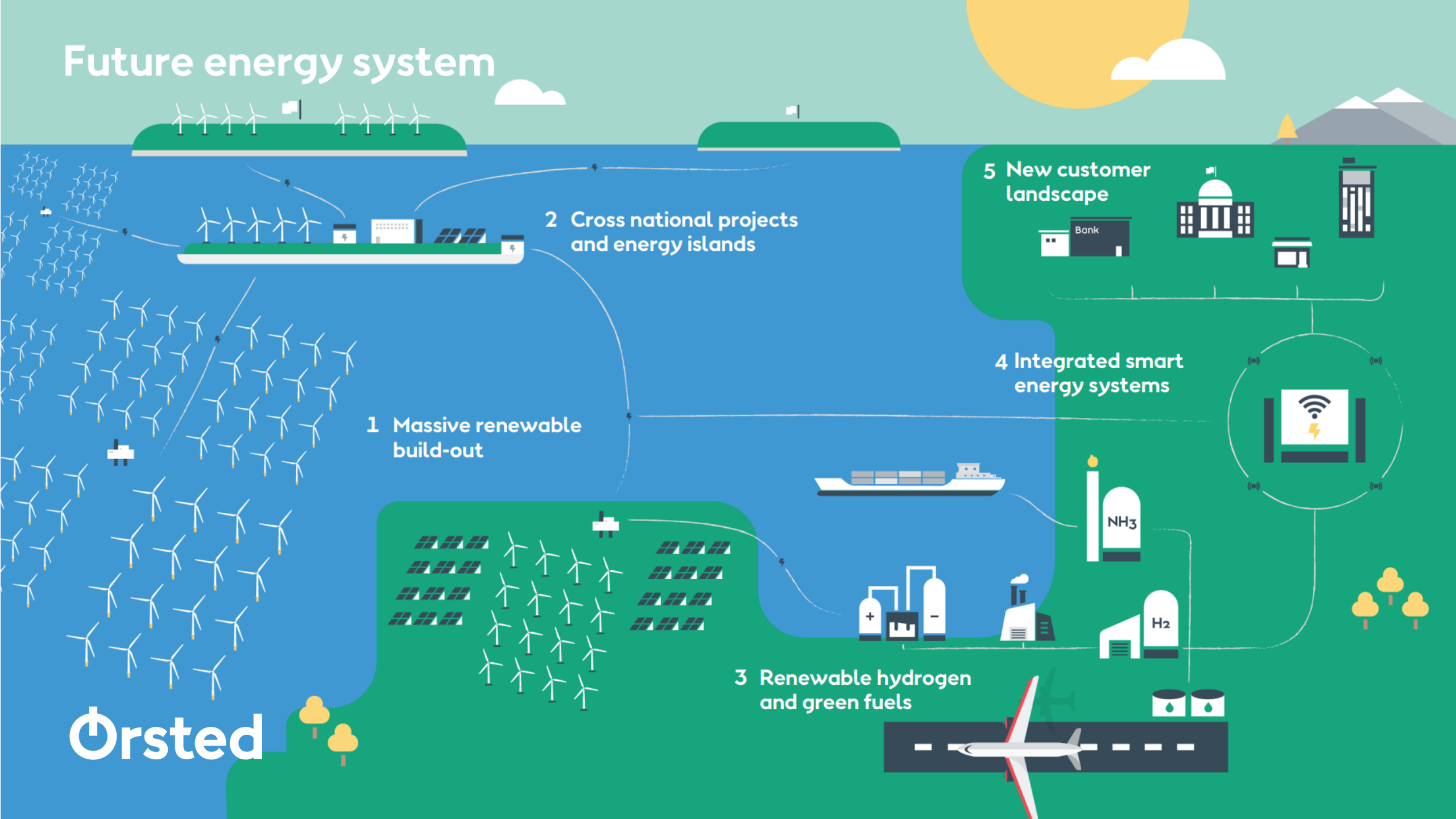
Hybrid onshore wind and solar PV

Optimised capacity factors aligned to peak value hours



1. Data illustrative of an annualised P50 production level from a combined wind and solar PV facility with resource levels similar to the Helena Energy Center

Future energy system







































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Power-to-X: Hydrogen and green fuels project pipeline (Q2 2022)



 Heavy transport
  Refineries
  Chemicals & fertilizers
  Steel
  Green Hydrogen
  eMethanol
  eKerosene

| | Project | Maximum potential (MW) | Country | Application | Product(s) | Partners |
|----|----------------------------|------------------------|---|---|---|--|
| 1 | H2RES | 2 |  |  |  | Everfuel, DSV, GHS, +more |
| 2 | Green Fuels for Denmark | 1,300 |  |    |    | Maersk, SAS, CPH Airport, DFDS, DSV, +more |
| 3 | FlagshipONE | 70 |  |  |  | Liquid Wind |
| 4 | Project Star | 675 |  |  |  | Maersk |
| 5 | Sluiskil | 100 |  |  |  | Yara |
| 6 | SeaH2Land | 1,000 |  |    |  | North Sea Port and a range of regional offtakers |
| 7 | Westküste 100 / HySCALE100 | 700-2,100 |  |  |   | Raffinerie Heide, Hynamics, Holchim, +more |
| 8 | Lingen Green Hydrogen | 600 |  |  |  | bp |
| 9 | Gigastack | 100 |  |  |  | Philips 66, ITM Power, +more |
| 10 | Oyster | 1 |  | R&D project for Offshore H ₂ |  | ITM Power, Siemens Gamesa, Element Energy |

Questions?

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